CLAIMS

1. A method for monitoring a patient for the presence of a new left bundle branch block, comprising the steps of:

acquiring current and previous electrocardiogram records at different times for a particular patient;

determining that a new left bundle branch block is present in said particular patient based on an automated comparison of data in said current and previous electrocardiogram records;

automatically detecting that said particular patient belongs to a category of patients comprising patients identified to have a high probability of acute myocardial infarction; and

automatically generating a diagnostic statement stating that the new left bundle branch block may be due to acute myocardial infarction.

2. The method as recited in claim 1, further comprising the step of automatically tagging said current electrocardiogram record with a special tag.

3. The method as recited in claim 1, wherein said tagging step is performed by a satellite system connected to a network, further comprising the step of sending said specially tagged current electrocardiogram record to a central database via said network.

4. The method as recited in claim 1, wherein said automated comparison comprises the steps of determining that said current electrocardiogram record comprises a diagnostic statement indicating the presence of a left bundle branch block and determining that said previous electrocardiogram record does not comprise a diagnostic

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statement indicating the presence of a left bundle branch block.

5. The method as recited in claim 4, wherein said automated comparison further comprises the steps of:

computing a percentage change in a measurement relating to a left bundle branch block criterion in said current and previous electrocardiogram records; and

determining that said percentage change exceeds a first predetermined threshold.

6. The method as recited in claim 5, wherein said automated comparison further comprises the steps of:

computing a correlation value for respective waveforms in said current and previous electrocardiogram records using cross correlation; and

determining that said correlation value exceeds a second predetermined threshold.

7. A method for monitoring a patient for the presence of a new left bundle branch block, comprising the steps of:

acquiring current and previous electrocardiogram records at different times for a particular patient;

determining that a new left bundle branch block is present in said particular patient based on an automated comparison of data in said current and previous electrocardiogram records;

automatically detecting that said particular patient belongs to a category of patients comprising patients identified to have a high probability of acute myocardial infarction; and

automatically tagging said current electrocardiogram record with a special tag.

8. The method as recited in claim 7, wherein said tagging step is performed by a satellite system connected to a network, further comprising the step of sending said specially tagged current electrocardiogram record to a central database via said network.

9. A system for monitoring a patient for the presence of a new left bundle branch block, comprising:

means for acquiring current and previous electrocardiogram records at different times for a particular patient;

means for determining whether a new left bundle branch block is present in said particular patient based on a comparison of data in said current and previous electrocardiogram records;

means for detecting whether said particular patient belongs to a category of patients comprising patients identified to have a high probability of acute myocardial infarction, said detecting means being operative if said determining means have determined that a new left bundle branch block is present; and

means for generating a diagnostic statement stating that the new left bundle branch block may be due to acute myocardial infarction, said generating means being operative if said detecting means have detected that said particular patient belongs to said category.

10. The system as recited in claim 9, further comprising means for tagging said current electrocardiogram record with a special tag if said detecting means have detected that said particular patient belongs to said category.

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11. The system as recited in claim 10, further comprising a network and a central database connected to said network, wherein said determining means, said detecting means, said generating means and said tagging means comprise programming executed by a computer connected to said network, said programming further comprising a routine for sending said specially tagged current electrocardiogram record from said computer to said central database via said network.

12. The system as recited in claim 9, wherein said determining means comprise a computer programmed to determine which of said current and previous electrocardiogram records contain a diagnostic statement indicating the presence of a left bundle branch block.

13. The system as recited in claim 12, wherein said determining means further comprise said computer programmed to perform the following steps if said current electrocardiogram record contained a statement indicating the presence of a left bundle branch block and said previous electrocardiogram record did not contain a statement indicating the presence of a left bundle branch block:

computing a percentage change in a measurement relating to a left bundle branch block criterion in said current and previous electrocardiogram records; and

comparing said percentage change to a first predetermined threshold.

14. The system as recited in claim 13, wherein said determining means further comprise said computer programmed to perform the following steps if said percentage change exceeded said first predetermined threshold:

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computing a correlation value for respective waveforms in said current and previous electrocardiogram records using cross correlation; and

comparing said correlation value to a second predetermined threshold.

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15. The system as recited in claim 14, wherein said detecting means comprise said computer programmed to detect whether said particular patient is suspected to have suffered acute myocardial infarction if said correlation value exceeded said second predetermined threshold.

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16. The system as recited in claim 9, wherein said detecting means detect that said particular patient belongs to said category by recognizing that said current electrocardiogram was acquired from a hospital unit for patients suspected to have acute myocardial infarction.

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17. The system as recited in claim 9, wherein said detecting means detect an indicator included in said current electrocardiogram, said indicator identifying a symptom indicative of suspected acute myocardial infarction.

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18. A system for monitoring a patient for the presence of a new left bundle branch block, comprising:

memory for storing a previous electrocardiogram record;

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an instrument for acquiring a current electro-cardiogram record at a time which is later than the time when said previous electrocardiogram record was acquired; and

a computer programmed to perform the following steps:

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determining whether a new left bundle branch block is present in said particular patient based on a comparison of data in said current and previous electrocardiogram records;

5 detecting whether said particular patient belongs to a category of patients comprising patients identified to have a high probability of acute myocardial infarction, said detecting step being performed if a determination has been made that a new left bundle branch block is present; 10 and

generating a diagnostic statement stating that the new left bundle branch block may be due to acute myocardial infarction, said generating step being performed if membership of said particular patient in said category 15 has been detected.

19. The system as recited in claim 18, wherein said instrument comprises a bedside monitor in a coronary care unit, emergency department or chest pain clinic, further comprising a local area network connecting said 20 computer to said bedside monitor.

20. The system as recited in claim 18, wherein said computer is further programmed to tag said current electrocardiogram record with a special tag if said detecting step has detected that said particular patient 25 belongs to said category.

21. The system as recited in claim 20, further comprising a central database and a network connecting said computer to said central database, wherein said computer is further programmed to send said specially tagged current 30 electrocardiogram record to said central database via said network.

22. The system as recited in claim 18, wherein said determining step comprises the step of determining

which of said current and previous electrocardiogram records contain a diagnostic statement indicating the presence of a left bundle branch block.

23. The system as recited in claim 22, wherein said determining step further comprises the following steps, which are performed if said current electrocardiogram record contained a statement indicating the presence of a left bundle branch block and said previous electrocardiogram record did not contain a statement indicating the presence of a left bundle branch block:

computing a percentage change in a measurement relating to a left bundle branch block criterion in said current and previous electrocardiogram records; and

comparing said percentage change to a first predetermined threshold.

24. The system as recited in claim 23, wherein said determining step further comprises the following steps, which are performed if said percentage change exceeded said first predetermined threshold:

computing a correlation value for respective waveforms in said current and previous electrocardiogram records using cross correlation; and

comparing said correlation value to a second predetermined threshold.

25. A system for monitoring a patient for the presence of a new left bundle branch block, comprising:

memory for storing a previous electrocardiogram record;

an instrument for acquiring a current electrocardiogram record at a time which is later than the time when said previous electrocardiogram record was acquired;

and

a computer programmed to perform the following steps:

5   determining whether a new left bundle branch block is present in said particular patient based on a comparison of data in said current and previous electrocardiogram records;

detecting whether said particular patient belongs to a category of patients comprising patients identified to 10   have a high probability of acute myocardial infarction, said detecting step being performed if a determination has been made that a new left bundle branch block is present; and

tagging said current electrocardiogram record 15   with a special tag if said detecting step has detected that said particular patient belongs to said category.

26. The system as recited in claim 25, further comprising a central database and a network connecting said computer to said central database, wherein said computer is 20   further programmed to send said specially tagged current electrocardiogram record to said central database via said network.

27. A system for monitoring the condition of patients in a coronary care unit, emergency department or 25   chest pain clinic, comprising a local area network, a plurality of bedside monitors connected to said local area network, a computer connected to said bedside monitors via said local area network, and a central database containing electrocardiogram records which are accessible to said 30   computer, each of said bedside monitors comprising a plurality of leads coupled to a respective patient, and said computer being programmed to perform the following steps:

receiving from said central database a previous electrocardiogram record for a patient in said coronary care unit, emergency department or chest pain clinic;

receiving a current electrocardiogram record for said patient from one of said plurality of bedside monitors via said local area network;

determining that a new left bundle branch block is present in said patient based on a comparison of data in said current and previous electrocardiogram records; and

generating an alert that the new left bundle branch block may be due to acute myocardial infarction.

28. A method of treating a patient suspected to have acute myocardial infarction, comprising the following steps:

admitting said patient to a coronary care unit, emergency department or chest pain clinic;

monitoring the patient to acquire a current electrocardiogram record;

receiving from a central database a previous electrocardiogram record for said patient;

determining that a new left bundle branch block is present in said patient based on a comparison of data in said current and previous electrocardiogram records;

generating an alert that the new left bundle branch block may be due to acute myocardial infarction; and

treating said patient in response to said alert.

29. The method as recited in claim 28, wherein said treatment step comprises thrombolytic therapy.

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